

REMARKS

A non-Final Office Action was mailed on May 15, 2006, which rejected all of pending claims 1-28.

In the present Response, Claims 1, 8, 12, 13, 16, 20, 24, 25, 27 and 28 are amended. Claim 26 is cancelled. No new matter is added by way of these amendments. Furthermore, for at least the reasons discussed herein, each of the presently pending claims are now in condition for allowance.

Claim Rejections - 35 U.S.C. §103

Claims 8-10, 12, 14-15, 21 and 25

Claims 8-10, 12, 14-15, 21 and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,370,620 (Wu et al., hereinafter referred to as “Wu”) in view of U.S. Patent No. 6,542,964 (Scharber, hereinafter referred to as “Scharber”).

In regard to amended Claim 8, the claimed invention provides for “determining a frequency of requests for static content, wherein a determination of information included within the request determines a static type of the requested content.” See Specification, Page 13, 29 through Page 14, line 6. Neither Wu nor Scharber, either singly or in combination, suggest or anticipate this novel aspect of the claimed invention.

Furthermore, although Scharber may disclose employing a type of protocol to guess at a type of dynamic content, this reference clearly does not teach employing the information included within the request, e.g., file extensions, included within the request to determine a static type of content. Also, Wu is directed to controlling cache misses in web caches, not hot caches based on frequency thresholds as taught by amended Claim 8. Therefore, amended Claim 8 is non-obvious and allowable over the suggested combination of references.

In regard to Claim 9, the Office Action alleges that Wu discloses “hashing the identifier associated with the content to obtain a value and forwarding the request to a cache

associated with the value when the frequency of requests for static content is below the threshold". The Office Action cites two sections of Wu in support of this statement. The first section is column 4, line 48 to column 5, line 8 and the second section is column 6, line 43 to column 7, line 3.

However, the first section describes the behavior of a web cache server when there is a cache miss (see Fig. 5). A hash function is computed when there is a cache miss and when the request is determined to come from a client browser. If the request is determined to come from a sibling web cache server, the request is forwarded to the originating web server (i.e. a content server). This is different from the condition set down in Claim 8 as amended.

The second section describes a reference count for requests for a given non-assigned partition object. A router makes a decision about whether to service a request locally within its cache cluster based on the reference count. Wu discloses that a request is serviced locally "only when the reference count ... exceeds a threshold" and that "otherwise, the request will be forwarded to the cluster corresponding to the requested object". Wu does not disclose that a hash function is computed at this point. Indeed, such a computation would appear to be redundant at this point because Wu discloses that the web cache server determines whether it is the partition owner before deciding whether to service or forward a request (see column 6, lines 6-8 and 43-46).

Thus, Wu does not disclose or suggest hashing the identifier associated with the content to obtain a value when the frequency of requests for static content is below the threshold, as required by Claim 9. Furthermore, dependent Claim 10 is allowable for at least the same reasons as independent Claim 8 upon which it depends.

Amended independent Claim 12 is amended in a similar, albeit different, way to amended Claim 8. Thus, amended Claim 12 is therefore allowable for at least substantially similar reasons. Also, Claim 26 is cancelled and, as a result, the dependencies of Claims 13, 16 and 20 are amended to Claim 8, upon which they now depend. Additionally, dependent Claims 14, 15 and 21 are allowable for at least the same reasons as independent Claim 12 upon which they depend.

Independent Claim 25 is amended in a similar, albeit different, way to Claim 12. As amended, Claim 25 is therefore allowable for at least substantially the same reasons as amended Claims 8 and 12.

Claims 1, 24, 27 and 28

Claims 1, 24, 27 and 28 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,566,349 (Trout, hereinafter referred to as "Trout") in view of U.S. Patent No. 6,374,241 (Lamburt et al., hereinafter referred to as "Lamburt") and Scharber.

Amended Claim 1 teaches a method for forwarding requests for content from a client over a network. In contrast, Trout discloses primarily the internal routines of a processing system. Even so, the Office Action has alleged that Trout discloses "determining at least one type of the requested content". At column 11, lines 39-42, Trout discloses "identifying the source, class and type of data formats". However, this disclosure is clearly an assessment of incoming data (see column 11, line 26) itself rather than the actual information included within a request for subsequently provided content. The same is true at column 27, lines 61-64: the type of the actual data routed from the External Interface to the IO is assessed. Thus, Trout does not disclose determining at least one type of requested content based on a determination of information included within the request, nor a hot cache based on a frequency threshold.

Moreover, the Office Action has alleged that Trout discloses forwarding a request to a content server when the type of requested content is dynamic and forwarding a request to a cache when the type of requested content is static. However, the referenced section of Trout (column 12, lines 10-12) discloses that dynamic and static data are both retrieved from "the DS cache memory". There is no disclosure or suggestion that a request for such data should be forwarded, nor is there any distinction between the retrieval of dynamic data and static data.

Moreover, none of the other cited references (Lamburt or Scharber) complete the deficiencies identified in the Trout reference, and the suggested combination can't help but fail to teach the novel and non-obvious aspects of the claimed invention. Therefore, for at least the reasons disclosed here, amended Claim 1 is in condition for allowance over the cited references.

Furthermore, Claims 24, and 27 are amended in ways substantially similar to amended Claim 1, albeit different. At least in view of these amendments, the suggested combination of Trout with the other cited references neither discloses nor suggests the claimed invention of amended Claims 24, and 27, and they are allowable. Furthermore, dependent Claim 28 is allowable for at least the same reasons as amended Claim 27, upon which it depends.

Claims 2-7, 11, 13, 16, 17, 19, 20, 22 and 23

Claims 2, 3, 4, 5 and 6-7 were rejected under 35 U.S.C. 103(a) as being unpatentable over Trout, Lambert and Scharber in view of U.S. Patent No. 6,094,706 (Factor et al.), U.S. Patent No. 5,590,301 (Guenthner et al.), U.S. Patent No. 6,785,704 (McCanne), U.S. Patent No. 6,415,359 (Kimura et al.) and U.S. Patent No. 6,233,606 (Dujari) respectively.

Claims 11 and 16, 17 and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Wu and Scharber in view of U.S. Patent No. 6,330,561 (Cohen et al.) and Lambert respectively.

Claims 13 and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Wu, Scharber and Lambert in view of Cohen and U.S. Patent No. 6,591,341 (Sharma).

Claims 22 and 23 were rejected under 35 U.S.C. 103(a) as being unpatentable over Wu and Scharber in view of Dujari.

However, since independent Claims 1, 8 and 12 upon which Claims 2-7, 11 and 13, 16, 17, 19, 20, 22 and 23 depend respectively are allowable for at least the reasons given above, these rejections are moot and Claims 2-7, 11, 13, 16, 17, 19, 20, 22 and 23 are now in condition for allowance.

CONCLUSION

This response has addressed fully all of the concerns expressed in the instant Office Action and applicant believes pending claims 1-25, 27 and 28 are in condition for allowance. Early favorable action is urged. Should any further aspects of the application remain unresolved, the Examiner is invited to telephone the Applicant's attorney at the number listed below.

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